

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/03/08197

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/82 A01H1/00 C12N15/11

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N A01H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CHIANG M S ET AL: "TRANSFER OF RESISTANCE TO RACE 2 OF PLASMIDIOPHORA-BRASSICAE FROM BRASSICA-NAPUS TO CABBAGE BRASSICA-OLERACEA-SSP-CAPITATA 5. THE INHERITANCE OF RESISTANCE" EUPHYTICA, vol. 32, no. 2, 1983, pages 479-484, XP008025438 ISSN: 0014-2336 page 482, last sentence page 482, line 2 - line 4; figure 1	1,4, 11-25
X	WO 00 055340 A (PIONEER HI-BRED INTERNATIONAL, INC.) 21 September 2000 (2000-09-21) SEQ ID NO:3	33,35

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

17 December 2003

Date of mailing of the international search report

06. 01. 2004

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
T	DATABASE GSN [Online] 20 November 2003 (2003-11-20) CHANG H. ET AL.: "Rice gene SEQ ID NO:4190" Database accession no. ADA70867 XP002265512 abstract	34,35
P,X	-& WO 03 000898 A (SYNGENTA PARTICIPATIONS AG) 3 January 2001 (2001-01-03) SEQ ID NO:4190	34,35
A	--- MATSUMOTO ETSUO ET AL: "Linkage analysis of RFLP markers for clubroot resistance and pigmentation in Chinese cabbage (Brassica rapa ssp. pekinensis)" EUPHYTICA, vol. 104, no. 2, 1998, pages 79-86, XP008025589 ISSN: 0014-2336 abstract: first two sentences the whole document	13,16, 37-45
A	--- LANDRY B S ET AL: "A GENETIC MAP FOR BRASSICA-OLERACEA BASED ON RFLP MARKERS DETECTED WITH EXPRESSED DNA SEQUENCES AND MAPPING OF RESISTANCE GENES TO RACE 2 OF PLASMIDIOPHORA-BRASSICAE WORONIN" GENOME, vol. 35, no. 3, 1992, pages 409-420, XP008025588 ISSN: 0831-2796 the whole document	13,16, 37-45
A	--- DATABASE WPI Week 199728 Derwent Publications Ltd., London, GB; AN 1997-305513 XP002264817 & JP 09 117284 A (YASAI CHAGYO SHIKENBACHO), 6 May 1997 (1997-05-06) abstract	1-11,13, 16,37-45
P,A	--- DATABASE WPI Week 200314 Derwent Publications Ltd., London, GB; AN 2003-145043 XP002264818 & KR 010 006 352 A (UNIV CHUNGNAM NAT), 14 August 2002 (2002-08-14) abstract	1-11,13, 16,37-45
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# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP 03/08197

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 31, 32  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(ii) PCT - Essentially biological process for the production of plants
2. ☒ Claims Nos.: 1-12, 14, 15, 17-26  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-12,14,15,17-26

Present claims 1-12,14,15,17-26 relate to *B. oleracea* plants resistant to clubroot disease as well as to seeds, fruits, parts and uses thereof, defined by reference to the following parameters:

- P1: the nature of the resistance, namely that it is monogenic and dominant;
- P2: the "characterisation" of the resistance by defining primers that allow to obtain a marker which is linked to said resistance;
- P3: by indicating from which plants said resistance can be obtained, or
- P4: by indicating a segregation pattern for crosses between some "tester" plant and the claimed plant.

The use of these parameters in the present context is considered to lead to a lack of clarity within the meaning of Article 6 PCT. It is impossible to compare the parameters the applicant has chosen to employ with what is set out in the prior art. The lack of clarity is such as to render a meaningful complete search impossible. Consequently, the search has been restricted to those parts of the claims which appear to be clear, namely those parts relating to the subject-matter of claims 13,16 and dependent claims as well as to subject-matter of claims 27-30 and 33-45.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/03/08197

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 00055340	A	21-09-2000	AU WO	3604100 A 0055340 A1		04-10-2000 21-09-2000
WO 03000898	A	03-01-2003	WO	03000898 A1		03-01-2003
JP 9117284	A	06-05-1997	JP	2730670 B2		25-03-1998
KR 010006352	A		NONE			